
Citation:

Jones, OW and Claxton, J and Gold, J (2017) A little less conversation, a little more action: Illustrations of the Mediated Discourse Analysis method. Human Resource Development Quarterly. ISSN 1044-8004 DOI: <https://doi.org/10.1002/hrdq.21289>

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A Little Less Conversation, a Little More Action: Illustrations of the Mediated Discourse Analysis Method

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This article provides an introduction into the innovative use of the methodological approach of Mediated Discourse Analysis (MDA) and illustrates this with examples from an interventionist insider action research study. An overview of the method, including its foundation and association with the analysis of practice and how it can be situated within a reflexive ethnographic and critical realist stance, is presented. It offers samples of findings and analysis for each of the different aspects of method, structured by a set of heuristic questions, as well an example showing the possibilities of theory development. The article constructs and shows an analytical pathway for HRD researchers to use MDA and concludes with a discussion about the advantages of utilizing MDA, in terms of theory and practice, as well as the practical issues in conducting an MDA study. The implication for the HRD research community is that MDA is a new, innovative, and germane approach for analyzing HRD practice within organizational settings.

Key Words: coaching, Mediated Discourse Analysis [MDA], power, process improvement, routines

Introduction

This article provides an introduction to an innovative research method, Mediated Discourse Analysis (MDA). This method is of particular interest to both HRD researchers and practitioners because it can be utilized in HRD interventionist research (Anderson, Nimon, & Werner, 2016), and can help understand and translate into improved actual practice of HRD practitioners called for by Gubbins and Rousseau (2015). Yeo and Marquardt (2015)

identify that practice can be seen as situated actions, and they scope HRD as action-orientated change involving individual and collective learning. Eraut (2014) identifies that what is termed *informal learning* is important but underresearched. The article will aim to show that MDA is able to illuminate how actions taken in an organizational setting affect change and development of practice.

The questions that this article aims to address are as follows:

1. What is MDA and what are the concepts that underpin it?
2. What are the data collection methods utilized in MDA?
3. How is the data analysis undertaken?
4. What type of advantages can this method have in developing theory and practice?
5. What are practical considerations in using this method?

The method is demonstrated by a series of examples from an action research program. The particular illustrations are from an intervention research project (Savall & Zardet, 2014) to explore the development, partly through coaching, of process improvement practices in a higher education institution (HEI). The article is structured by first introducing the methodology of MDA, its grounding in the practice perspective, and the six key underpinning concepts. Second, suitable data collection methods for MDA are discussed. This is followed by a brief overview of the research project used for the demonstration of the MDA techniques. As MDA employs extensive methods, a significant section of the article is devoted to a set of illustrations of data analysis from this project. We are then able to show an analytical pathway, constructed from the experience of the research project, to guide researchers in undertaking MDA.

There is a subsequent example of theorizing from the MDA analysis, which, in this particular case, uses the theoretical resources of routines, coaching, and power. Finally, the article concludes with a discussion about the practical issues in employing MDA and the type of potential theoretical insights it is capable of producing. In particular, this last section addresses why the method is a valuable addition to the HRD researchers' arsenal of approaches as well as being a substantive method of conveyance between HRD academics and practitioners.

Principles of MDA

The antecedent of MDA is Activity Theory, which was formulated by the Russian cultural psychologist, Lev Vygostky (Norris & Jones, 2005). Activity Theory, and hence MDA assumes that all social actions are mediated through tools, external artefacts, or internal (to the individual). Bonk and Kim (1998)

review how Vygotsky's theory, also referred to as Social Cultural Theory or Social Cultural Activity Theory (CHAT), is a powerful idea for investigating how learning and development of adults (in particular) occurs. MDA shares some principles with Critical Discourse Analysis (CDA); however it has a distinct focus on action, and sees discourse as just one among many potential mediational means or cultural tools (Scollon, 2001a). Bonk and Kim indicate (even in 1998) the large number of artefacts and cultural tools that are potentially available as mediating tools that could influence the collaborative learning of adults. This mode of learning resonates with that of the practice perspective (Yeo & Marquardt, 2015). Nicolini (2012) identified MDA as a key tool in itself for researchers adopting a practice perspective, and he argues that MDA has a greater potential to provide an ontology for the practice-discursive aspect of the social world.

The practice perspective in management research attempts to go beyond the actions of individuals in organizations in relation to their agency but to reconcile how these fit with the historical notions of those actions as a socially recognizable activity—a practice (Gherardi, 2009). Of importance to HRD scholars is how practices develop over time so that HRD practitioners can intervene so that what they deem as important and useful practices can be developed in organizations.

MDA is a form of action research (Scollon & de Saint-Georges, 2012), in that the researcher usually immerses him- or herself to some extent in the setting. It differs from classic action research as the data collection provides rich enough data not to warrant additional action research cycles. It is a methodology for discovering how accomplishment of actions leads to the development of practice but is not a research approach in itself. It can therefore be adapted and utilized or nested within other, larger research intervention designs and is ideally suited to single-intervention studies of which there are a number of different types (Baard, 2010).

Ron Scollon was one of the key architects of MDA (Nicolini, 2012), which is why the literature on MDA is dominated by his contribution along with a few others, including his wife, Suzie Scollon. This initial group of researchers used MDA to explore social rather than organizational settings, more recently this has included online interactive spaces (Lemke, 2005; McIlvenny & Raudaskoski, 2005; Wohlwend, 2013).

Ron Scollon developed the six central concepts around which MDA is organized (Scollon, 2001a):

1. Mediated action
2. Site of engagement
3. Mediational means
4. Practice and mediational means
5. Nexus of practice
6. Community of practice

Mediated Action

The fundamental unit of analysis within MDA is the mediated action, and the notion that there is no social action without some form of mediational means, these being the semiotic or material means by which an action is communicated or carried out. MDA often refers to semiosis because the study of semiosis considers how meanings are made with signs, not just language. It is founded on the view that language is often both limited and not the only means by which actors communicate. There is also by inference no mediated action or means without a social actor.

Sites of Engagement

Sites of engagement are points in space and time. These facilitate the intersection of social practice and mediational means that enable a mediated action to occur (Scollon, 2001a). No action or site of engagement is defined by a unique practice; hence, MDA could reveal the intersection of different practices across space and time via different trajectories (de Saint-Georges, 2005). Researchers and participants can jointly construct sites of engagement, referred to as space-time stations (de Saint-Georges, 2005).

Mediational Means

Mediational means is the semiotic means by which an action is carried out: Semiosis in the MDA terminology includes both language and text but also material objects that have been appropriated for the purpose of the social action (Scollon, 2001a). MDA has a much narrower view of practice than is often referred to in the field of practice; in terms of scale, practice is seen as a “single recognisable repeatable action” (Scollon & Scollon, 2007, p. 13), as opposed to, for example, “training practice.” MDA has a concrete link to the social practice theory developed by Bourdieu, in that Scollon (2001a, p. 149) defined practice as “a historical accumulation within the habitus/historical body of the social actor of mediated actions taken over his or her life (experience) and which are recognizable to other social actors as ‘the same’ social action.” Scollon (2001a) also conceptualizes that practice is configured, as “chains of mediated actions,” but these actions themselves could form part of other social practices. The method is designed to elicit how individuals both recognize and construe these chains of actions. At a more granular level, and using a different dimension of consideration, Scollon (2001a) outlined that MDA researchers should conceive of a mediated action as being constituted of lower level actions, but these are also part of higher level actions. This consideration results in a potential hierarchy of actions, which provides a significant mechanism for the analytical steps within the methodology.

Nexus of Practice

The concept of the nexus of practice is defined as the intersection of multiple practices of groups of mediated actions (Scollon, 2001). The concept is rooted

in two interdependent ideas: the recognition of *repeatable* linkages of actions by actors, and the ability to enact those resulting practices in a group.

Community of Practice

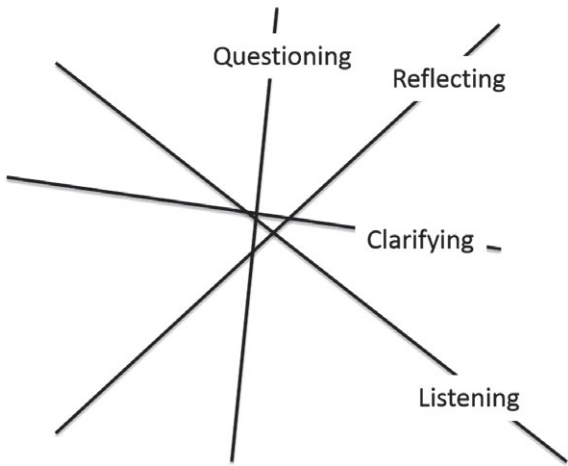
The final concept of MDA is that of community of practice. Scollon (2001a, p. 150) considers this to be relevant within MDA when a nexus of practice becomes “explicitly recognised as a group.” Again, this is a narrower definition than is often associated with the term, and Scollon (2001a) himself was critical of what he saw as overuse and simplification of the notion of a community of practice, particularly as popularized in the management literature (for example, see Lee & Oh, 2013; McGuire & Garavan, 2013; van Winkelen, 2016).

Conceptualization

Scollon (2001a) has a useful development of the visualization of where practices intersect at a site of engagement in relation to a nexus of practice. This includes the concept that practices have trajectories in time and space to other nexus and potential sites of engagement (Scollon, 2001a; de Saint-Georges, 2005). The recurrent example Scollon (2001a) uses is with respect to the social nexus of buying coffee, but an example of a possible nexus that could be considered in an HRD context could be coaching. An illustrative example using some of the relevant coaching practices identified by Cox (2013) is shown in Figure 1.

It is worth noting that Scollon’s diagrammatic representations of practices as intersecting lines do not attempt to represent each interaction or

Figure 1. Nexus of Practice



Adapted from Scollon (2001a, p. 152)

individual action as an intersection. It is merely that the nexus contains the potential for these practices to intersect in any social action at that site of engagement. It also does not indicate the quality or quantity of the practice within that nexus.

The theoretical grounding of MDA facilitates rigor in the appropriate alignment of research activity with ontological and epistemological stances. MDA sees discursive practice as one form of social practice, and therefore does not take it that discourse constitutes society and culture (Scollon, 2001b). Scollon (2003) suggested that Critical Realism (CR) is a suitable philosophical basis for social science research, and other authors have argued that the notion of mediation central to activity theory (thus MDA) could be grounded within CR (Allen, Brown, Karanasios, & Norman, 2013; Nunez, 2013). This is because CR maintains that there is a reality outside of the mind—for example, in this case artefacts—but that access to the world is always conceptually mediated (Fleetwood, 2005), in the case of Activity Theory and MDA by cultural tools, for example, a discourse or language.

As MDA is a form of action research, the research is embedded to the specific situation and the research study, so much so that the researcher is an integral part of the nexus under study. However, the fulcrum activity in MDA is observation of the actual mediated actions at the site(s) of engagement (Scollon, 2001a). This can often require the researcher to adopt a reflexive ethnographic position (Aull Davies, 2008) because the researcher, and the layers of their reflections, form part of the data collection and subsequent analysis.

Data Collection Methods

Scollon and de Saint-Georges (2012) proposed that implementing MDA involves three aspects of research activity: engaging the nexus, navigating the nexus, and changing the nexus. The opening task, engaging the nexus of practice, consists of the researcher placing him- or herself as suggested above in what Scollon and de Saint-Georges (2012) refer to as “zone of identification” with the nexus. Navigating the nexus is about identifying the mediated actions, the mediational means, as well as “the trajectories of participants, places, and situations both back in time historically and forward through actions and anticipations to see if crucial discourse cycles or semiotic cycles can be identified” (Scollon & de Saint-Georges, 2012, p. 83).

Semiotic cycle is this mode in the dialectic chain of actions that facilitates the making of meaning by the actors in the relevant context. Scollon (2001a) is clear that MDA researchers should attempt to have no assumptions about what mediational means or social actions will be of importance. Scollon outlines that a significant aspect of MDA is ensuring that researchers can investigate the action, without removing it from its local and historical context; a set of heuristics that assist in this process are outlined later in the article.

Finally, in resonance with action research—and, in particular, interventionist research—is the notion of the researcher actively changing the nexus. Scollon and de Saint-Georges, 2012, p. 72) indicated that this is initially done by “re-engaging the product of the analysis back into the nexus of practice from where it originates.” That is, at a simple level, sharing the findings with the participants of the research, but in MDA the outcomes from this reengagement process form part of the overall analysis. Scollon (2001a) suggested that focus groups could be used for this purpose.

Researchers adopting MDA can utilize a range of methods such as “close analysis of texts or not, semiotic analyses of visuals, study of the interaction order, ethnographic observations, etc. or any combinations of these” (Scollon & de Saint-Georges, 2012, p. 11) and is not prescriptive in this regard (Scollon, 2001a). Scollon (2001b) has a useful identification and explanation of the family of the close analysis of text, which include for example conversation analysis, where underlying structures beneath and between the basic text and speech are scrutinized. The visual semiotic analysis referred to is work to identify significant signs and their meaning by detailed examination of images. Thurlow and Aiello (2007) have a useful example study. Scollon and de Saint-Georges (2012) summarize by stating it is “intimately bound to the specifics of situation studied and issue researched” (p. 11).

The central activity in MDA is targeted on the actual mediated actions at the site(s) of engagement (Scollon, 2001a): These social actions occur in real time and are unique, and the researcher needs to orientate him- or herself to be able to be there at a suitable moment to undertake the data collection. In organizational settings these are often known (e.g., team meeting), but in some cases the site(s) of engagement are unknown. Scollon (2001a) outlined different potential modes of selecting these unknown sites by use of techniques such as scene surveys and focus groups.

However, there is also some preliminary activity, which forms part of the navigation of the nexus, of which the main purpose is to ascertain the following:

- Potential anticipatory discourses
- Likely mediational means
- Likely mediated actions and chains of mediated actions

The preevent data collection aims to establish the potential trajectories of both practices and mediational means, and any other significant sites of engagement of importance in relation to the participants (de Saint-Georges, 2005). Triangulation is attempted in MDA by capturing different types of data, including generalizations of members, objective observations, individual members’ experience, and observers’ interaction with members, although Scollon (2001a) acknowledged that this may not always be possible.

Table 1. MDA Heuristic Questions

1. What is the action?
2. What is the hierarchy of actions?
3. What chain, or chain of actions, is important?
4. What is the relevance or importance of the action in the sequence?
5. What are the practices that intersect to produce this site of engagement?
6. What histories in habitus do these practices have?
7. In what other actions are these practices formative?
8. What are anticipatory and retrospective discourses—that could provide a meta-discursive structure?
9. What specific forms of analysis should be used in analyzing the mediational means?
10. What mediational means are used in this action?
11. How and when where those mediational means appropriated within the practice?
12. How are those mediational means used in this action?

As mentioned previously, Scollon (2001a) usefully provided a range of heuristic questions for the analysis which are shown in Table 1.

These questions can also provide a degree of structure for pre and post semistructured interviews, as well as the site of engagement observations themselves. Some of these can be rephrased for use with organizational participants, for example, “key/significant events” in place of “sites of engagement,” and “what do you think will happen in the meeting?” in search of potential actions and chains of actions. Similarly, “significant [project] milestones” could be used to search for past trajectories of practices.

These heuristic questions provide a framework for the different types of analysis that are possible with MDA. We now illustrate how this can be done with demonstrations of analysis taken from one particular action research project, necessitating a temporal shift in tense to recount this. The action research project is introduced in the following section.

Illustrative Context

The drive toward effectiveness and efficiency in the higher education (HE) sector (Milliken & Colohan, 2004) has led to universities wanting to develop process improvement (PI) capability (Radnor & Bucci, 2011). As a consequence of this environmental change, one of the authors with PI expertise was asked to coach a Process Improvement Unit [PIU] within a large U.K. HEI.

There is some consensus that capability can be conceptualized as consisting of sets, bundles, or arrays of organizational routines (Perteraf, Di Stefano, & Verona, 2013; Salvato & Rerup, 2010). Parmigiana and Howard-Grenville (2011) identified that the practice approach to routines is part of a wider

practice turn in organizational studies (Gherardi, 2009; Miettinen, Samra-Fredericks, & Yanow, 2010; Sandberg & Dall’Alba, 2010). The emphasis when using a practice lens is “how the actions within the routine are produced and reproduced, and the relative stability or change over time” (Parmigiana & Howard-Grenville, 2011, p. 421). The empirical question of the resulting action research project was: *How can process improvement routines be developed?* The action research project adopted an interventionist research (IR) approach, which is often used to facilitate organizational change and development (Savall & Zardet, 2014). Intervention research is typically composed of methodological steps called phases, configured around the construction of an intervention and the subsequent analysis, rather than a repeating traditional action research cycle. These constructions should be coproduced between the researcher and the participants (Oyegoke, 2011). It was agreed that the priority for the PIU was to develop practice competence in process improvement projects; hence, the construct in this instance was two linked interventions—coaching and a process improvement project. The construct was then applied to the next available set of events, a process improvement project meeting, and two associated planning meetings, one occurring before, and the other after the *project* meeting. This resulted in an *applied construct*, which is shown in Figure 2.

Illustrative Data Collection

Figure 3 illustrates how MDA methodology was applied to the constructed intervention. This shows the scope of the pre and post interviews in relation to the events.

Figure 2. Applied Construct

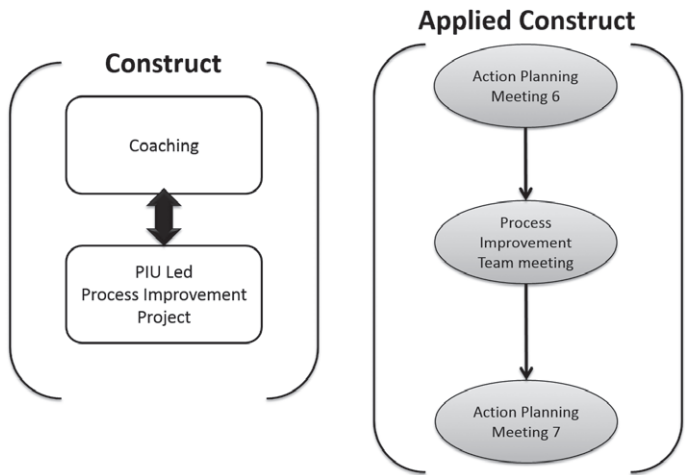
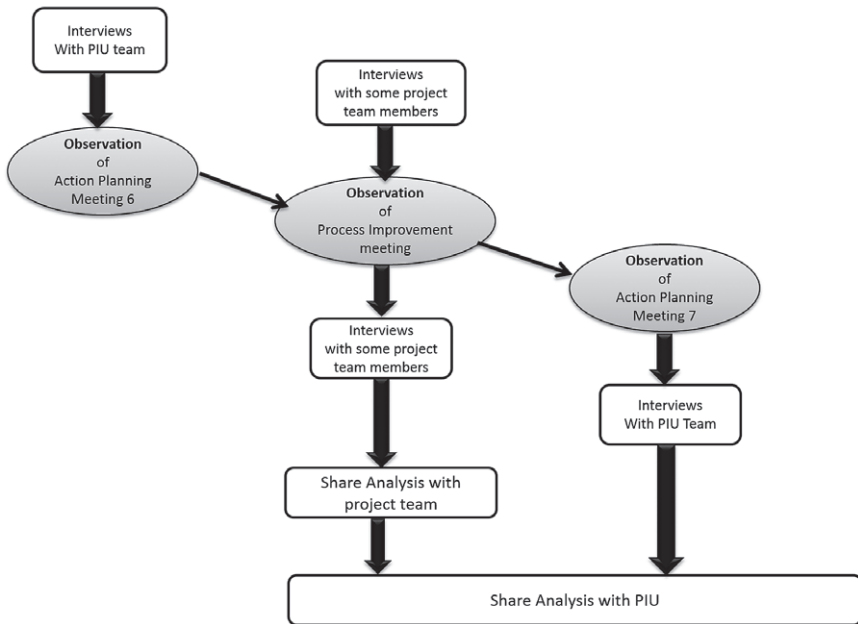


Figure 3. MDA Research Design for the Intervention



The sharing of the analysis with participants called for within MDA was done collectively with the PIU in one event, rather than separately after each event and analytical step. This was for two reasons: first because of the time constraint between events, but more importantly, because of the nature of second planning meeting (termed AP7). The construct of this second planning meeting was to initiate primary reflections on the *project* meeting. If a focus group had been held before this planning meeting, then these primary reflections would have been lost or subsumed in the data.

Hammersley and Atkinson (1995) suggested that in ethnography the observer can have a number of different *theoretical social roles*; for example, a participant as observer or a “complete participant.” In this example, the author was the former for the project meeting but the latter for the planning meetings. Hammersley and Atkinson suggested that making field notes during observation can be problematic—even more so if one is participating at the event. In order to mitigate this, but more importantly, to provide the source data needed for the analysis of actual actions, the observations were audio-recorded. The author expanded and developed the initial field notes, including layers of reflective commentary for transparency of reflexivity suggested by Aull Davies (2008) utilizing, in part, these recordings. The pre- and postevent interviews were recorded, transcribed, and anonymized using pseudonyms for

the main actors, with the author (coach) being designated as “PR” for “participating researcher.”

Illustrations of the Data Analysis

The heuristic questions provide an opportunity for different types of analysis: some of these are composite in the sense that they are needed for another question, for example, establishing the mediational means so that the mediation of the action can be analyzed. However, many of these can provide significant findings in themselves. This section recounts and shows extracts from the analysis of the research project in order to illustrate the different modes of analysis that can be undertaken within the MDA heuristic structure. Where reflexivity occurs, this is referred to in the first person; otherwise, the author [coach] is identified as the PR.

The first set of heuristic questions within MDA is:

1. What is the action?
2. What is the hierarchy of actions?
3. What chain or chain of actions are important?
4. What is the relevance or importance of the action in the sequence?

The three expanded field reports from each event were scanned, interrogated, and coded for actions. Scollon (2001b) referred to the notion of “linguistic actions,” in that language is used as an action to achieve something, and this perspective was utilized here. This resulted in a significant number of actions. Using the ethnographic field notes and with reference to the recording, first the high-level actions were categorized and placed in chronological order to reflect the progression of the event. Second, in an iterative mode, the lower level actions were allocated to medium-level action groups that were identified as part of the analysis. As this project was concerned with process improvement, an appropriate literature review was able to provide the relevant potential PI practices, which were utilized in the coding of these medium-level action groups. The lower level actions were then categorized further, by actor(s) (agents in the research field) and shared action. An extract (as they are large) of an example of this, is shown in Table 2 as an *action summary table*, similar to Scollon (2001a, p. 163).

As outlined previously, actions must fit together in a sequence to form chains of action as well as sitting within a hierarchy. The structure of episodes within the action hierarchy table was utilized to construct a representation of the chain of actions for these medium-level actions. This is shown in Figure 4.

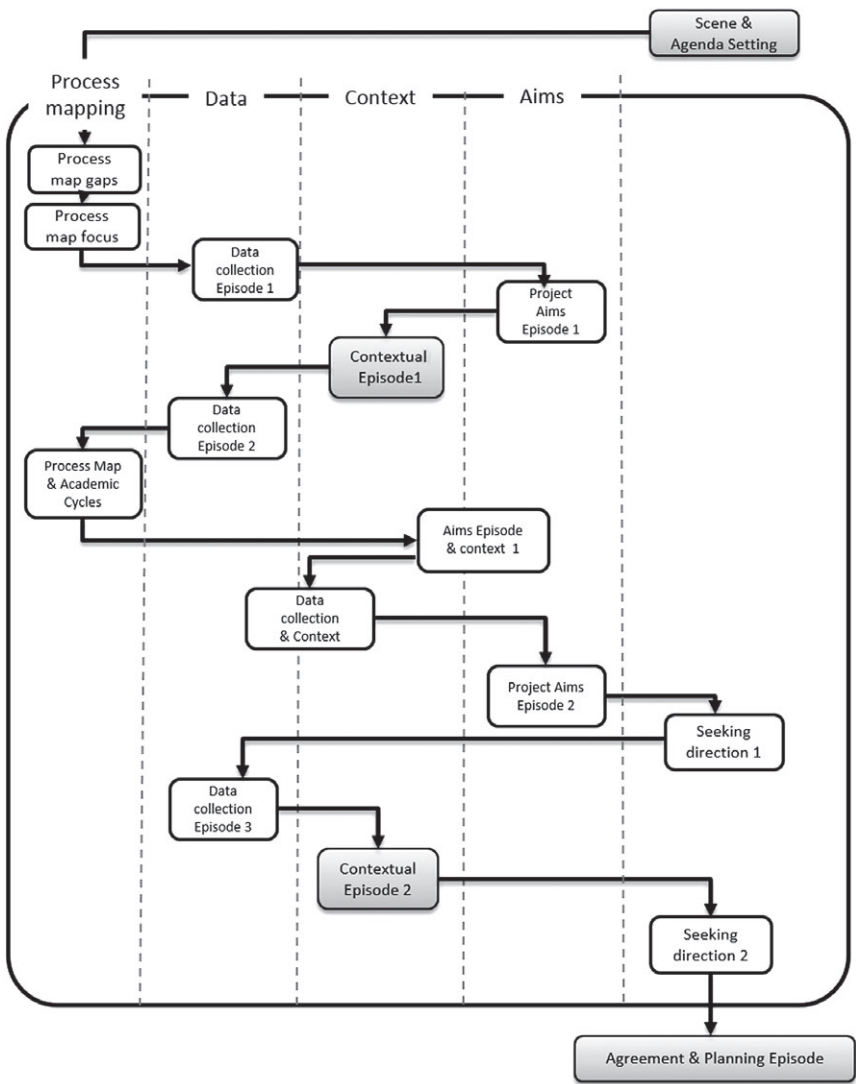
Nicolini (2012) argued that when researching practice, it is appropriate to be able to “zoom in and out,” and as Scollon (2001a) himself identified, the “level” at which the analysis is done depends on the area of concern. There was a high level of similarity between the nomenclature of the medium-level

Table 2. Extract From an Action Hierarchy Table

High-Level Actions	Medium-Level Actions	Participants—Low -Level Actions		
		Irene	Martha	PR
Reflective review (cont'd.)	Reflecting Episode 4		Expressing opinion	
			Explanation	
			Allude	
			Validation	Expressing opinion
				Airing an issue
		Construct Argument A		Construct Argument A
		Silence	Silence	Silence
				Seeking contribution
				Answering question
				Asking a question
Planning	Planning Episode 1 Agenda activity		Answering	
				Seeking clarification
				Questions
			Statement of situation	
			Expressing opinion	
				Offering alternative
				Seeking future action
				Asking a question
			Deflection	
			Seeking instruction	
				Explanation
			Deferring	
				Offering alternatives
				Statement of intent

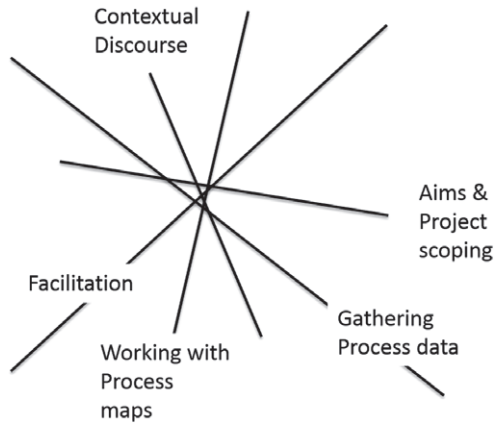
action groups and the PI practices, which were the main consideration within the research question in this example. The benefit of constructing a diagram like Figure 4 is that it enables the visualization of the chains of actions throughout an event that relate the practices being investigated. Figure 4

Figure 4. Chain of Medium-Level Action Groups for the Process Improvement Project Event



shows the main practices identified in the columns as working with a process map, gathering process data, and aims and scoping. The contextual discourse identified in the analysis above was not relevant to the empirical question; it related to changes in the external environment and, as such, was left unanalyzed. This type of analysis was also conducted for the two planning meetings,

Figure 5. Nexus of Practice for the Process Improvement Project Event



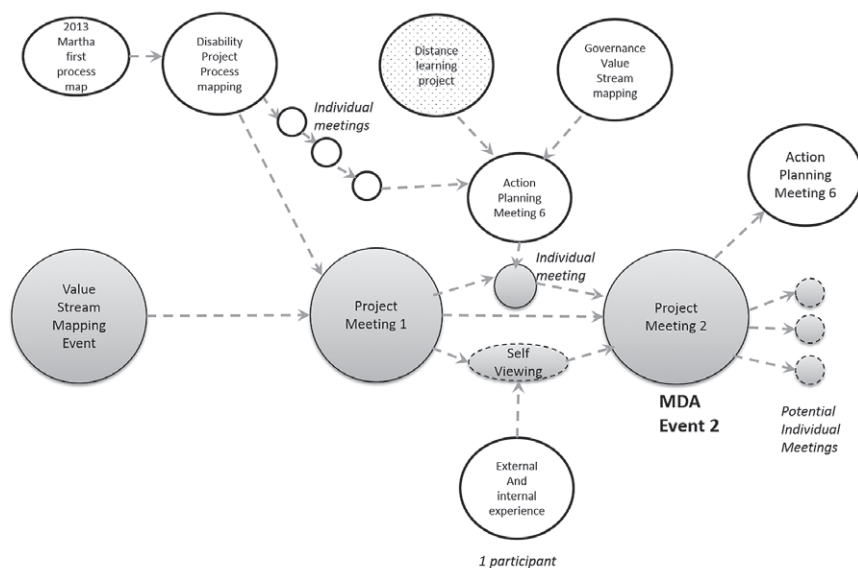
resulting in similarly notated action hierarchy tables and medium-level chain representations.

What Are the Practices That Intersect to Produce This Site of Engagement? The analysis summarized in Figure 5 can be transposed by adapting and utilizing the diagrammatic configuration used by Scollon (2001a, p.152) to illustrate the nexus of practice, shown in Figure 5.

What Histories in Habitus Do These Practices Have? The MDA scholar de Saint-Georges (2005), conceptualized practices, mediational means, and people as having trajectories that intersect at *space/time stations* and where sites of engagement can “open up.” In order to track these trajectories and potential space/time stations—in essence, other sites of engagement—participants were asked at the preevent interviews about potential milestones. Therefore, the next analytical step was reviewing the data by coding for the space/time stations (milestones) for the practices of interest. A time/date index was added for each of the coded milestones, in this case using a combination of NVivo and Excel software. An example of what this looks like is shown in Appendix 1. These indexes were then converted into a visual representation of the trajectories, an example of which is shown in Figure 6.

In this example, the circles represent the space/time stations for the practice, and the dotted lines represent the trajectories. The circles that represented where those practices of the PIU intersected with those of the *project* team were colored gray. To indicate events that may have occurred, or the desired sites of the trajectory of the practice, the circumferences of the circles were dashed. The trajectories of the different practices can be combined to form an overall picture of the development of practices that are of interest. One significant insight from the amalgamation in this illustration was a notion that there were *lines of visibility*—who was engaged in different practices and to what extent, and who was not.

Figure 6. Trajectory for the Practice of Working with a Process Map



In What Other Actions Are These Practices Formative? This is essentially looking at how practices can intersect at the point of an action or, conversely, where they should or could but do not. In order to do this, Scollon (2001a, p. 170) suggested that “once we have identified the significant practices we can study those separate practices at other sites of engagement.” He goes on to outline that “within MDA, the goal is to arrive at a richer understanding of the history of that practice within the habitus of the participants.”

The trajectory analysis showed that what was termed the *value stream event* was significant for the participants of the process improvement project. Of the potential practices identified in the original literature review, only three practices were traceable back (using the trajectory analysis) to the value stream event. These were:

- Having a process view
- Working with a process map, including process mapping
- Empowerment

The interview data were then recoded for these practices, and one particular extract was obtained because it was coded for all three of the practices identified above. The linkage of the process mapping practice to the empowered practice was explored by reexamining an extract from an interview with Zoe, one of the participants. This analysis was framed using a mini-trajectory based on the implied timings of her answers. The results are shown in Table 3.

Table 3. Mini-trajectory

Timeline	Zoe
1	"It was really nice to see it on a wall chart from start to finish and that also as well may just think about certain aspects of the process, saying, well, actually, 'Why did we do that at that point and do we need to do that at that point, how can we improve it,' and things like that."
2	"I think there's an element of 'we've always done it like that'; we can't change it. I think the initial meeting ... I think at that point people realized, 'Oh, actually, we can change it if we want to change it; there's no definite rule that that's how we have to do it.'"
3	"But, actually, we've had it in the forefront—well I have, anyway, in the forefront of my mind—so when I've been doing things I've been thinking about that process that we went through and try and think, 'Well, actually, we don't necessarily need to do that at that point; we're doing that for the sake of doing it, or actually we do need to do this so why don't we put that in.'"
4	"... and things that we've actually changed through the process by having that in our minds."
5	"We've been implementing little small elements of it. ... Yeah, like the small things, but I suppose you have to start with the small things to make a bigger impact eventually."
6	"See if things have changed without us even realizing it as well. I think a number of things have changed already without us actually realizing it."

It is clear from this that the mapping caused a change in the perspective of Zoe, which facilitated her and her fellow officers being able to make changes to their process. An interview with another officer, Tessa, substantiated that the process mapping was a significant mechanism in developing empowerment (engagement and motivation) practice. Table 3 also provides some evidence where Zoe appropriated the mediational means of the process map into her habitus. In the interview, Zoe also twice indicates that they may have developed the practice of empowerment to change a process, to a point where they were not even realizing they were making changes. Her explanation has resonance to an aspect of one of the definitions of habitus that it becomes "embodied history, internalized as a second nature and so forgotten as history" (Bourdieu, 1990, p. 56). This is particularly relevant, as the actual process map artefact was not referred to, utilized, or updated in any of these subsequent process changes.

What Are Anticipatory and Retrospective Discourses That Could Provide a Meta-discursive Structure? This phase of the analysis provides the researcher with a frame through which to look at the final set of heuristic questions, which focus on the actual mediated actions. In order to undertake this mediated action analysis, a bank of possible mediational means is required, including the potential anticipatory and retrospective discourses.

Thematic analysis is often the first step in identifying discourses (Harrison-Woods, 2012; Willot & Griffin, 1997). Willot and Griffin's steps were used as a framework for the coding within the pre and post interview transcripts. A summary of this thematic analysis is shown in Appendix 2 with an associated structure in terms of which of the potential discourses were shared and whether they were always present, present before, or emerged after the event(s), as well as the level of specificity they had to the events.

What Mediation Means Are Used in This Action? Researchers using MDA should not confine the scope of potential mediational means as discourses but also consider physical objects. The field notes, the participating researcher's memory, and the recording were used to collate a list of these. These were then added to the previous thematic analysis to create an overall *bank* of possible mediational means for the final phase of MDA. An example of this bank is shown in Appendix 3.

Mediated Action Analysis. The action summary table analytical step provides a helpful structure of episodes, linked to the relevant practices. This enables a detailed action analysis to be undertaken on particular areas of interest.

Nicolini (2012) explains that the analysis in MDA is neither the extreme focus of conversational analysis nor the linking of language in conversation to wider discourses that is the emphasis of CDA. Scollon stressed that as there are many mediational means and many potential methods of analysis; indeed, Scollon himself refrained from using any defined method of linguistic analysis within his main work on MDA (Scollon, 2001b); his analysis was just directly answering the remaining heuristic questions:

5. What mediational means are used in this action?
6. How and when where those mediational means appropriated within the practice?
7. How are those mediational means used in this action?

The illustrative research project included analysis on approximately 10 different episodes. The selected episodes were fully transcribed from the event recording as a precursor to the action analysis. The next section of the article demonstrates the analysis by showing just one particular extract from just one episode. This is in the form of the transcript with associated analysis and a commentary as to the value of this from the researcher's perspective. The verbatim transcripts from the event, which are the focal point of the mediated action analysis, are identified in italic text, while other quotations from participants from the interviews are not. As identified earlier, the first layer of reflexivity is written in the first person.

This particular extract and associated analysis comes from the first planning meeting where the participants, Irene, Martha, and myself, had been discussing arrangements for the process improvement project meeting.

It transpired that the Martha did have an underlying cause for her discomfort and potentially her lack of a plan, in that she wanted to postpone the meeting.

Martha: It's just that the meetings come quite quickly and I'll only be able to meet Beth, and she suggested the next person, Joseph, would be able to tell a bit about [X] and all that, it's best to meet him after I've met with Beth tomorrow.

PR: Right?

Martha: So now I'm thinking that should this meeting be moved.

[Brief silence]

It is not clear as to whether this was an option she had considered before the meeting started, but it clearly was a defining moment for Irene (and myself) suggested by the silence, and it was one of the few main recollections of the AP meeting in her post interview: "Oh yes, because Martha wanted to cancel the meeting, didn't she, and we were saying that possibly wasn't the best thing; it would be best to actually have the meeting. Yes, yes, it was just very hard, wasn't it? ..."

In response to Martha's suggestion, I appropriate the discourse of the past practice of 'working with a process map'; in order to construct an argument that we should enact the same practice in this situation, that is, not cancel the meeting. Irene supports this by an utterance.

Martha: Because we can't really start looking at what to do next if we haven't got ...

PR: No; well, we can—remember the [other] one; we were continually refining the process map, almost to the point where we redesigned the process because we were always finding out more, so we don't have to have a perfect [current process] map before we move on.

Irene: Mmmm.

Martha does not respond, so I appropriate the mediational means of my power in relation to hierarchy in this context, which is clearly recognized by Martha in her response:

PR: Do we?

Martha: No, no, my concern is only that it's not even (mmmm) of any good level it's like, if you look at it, it's got many gaps, but if you think we can do the meeting, that's fine, it's just ...

Both Irene and I then appropriate the mediational means of this and past projects (this project and previous ones had incurred delays) to provide additional ballast to the argument, possibly to detract from the overt use of power.

PR: We need to keep momentum going, don't we, don't you think?

Irene: Yeah, yeah, I think that is important.

Martha then concedes completely. In doing so she appropriates the discourse around project delays in what I termed self-reconciliation in the reflective notes.

Martha: It is difficult to get their availability, so I think you are right ... keep the meeting [quietly tailing off].

This could also be to detract from the overt use of power by appropriating the mediational means of the flat hierarchy to reestablish the notion of this as a prevalent discourse and practice. The experience of using power in this instance does appear to have modified Irene's contribution to the flat hierarchy discourse. The preevent interview is more aspirational in terms of collectivism:

Irene: "But in less of a way that there is one manager at the top that dictates what happens below and is detached from it. It is much more of a communal experience.

PR: Why are you bothered about it being less hierarchical?

Irene: Because I don't think that's helpful to the kind of work that we do.

However, in the post interview Irene reflects and recognizes a conflict in relation to this and her hierarchical position and practice as a manager: "I worry I'm a bit too dictatorial in what I want, and I'm too nice, but no, I have a clear vision of what I want to do and I want to be collaborative at the same time. It's those two things together; it's like, I suppose that's a dilemma most people have if you're in charge of an area, isn't it?"

The analysis therefore focuses on the individual action at each point and attempts to investigate the appropriation of relevant mediational means. However, it also references both the pre- and postevent data in order to strengthen and enhance the analysis.

Analytical Pathway

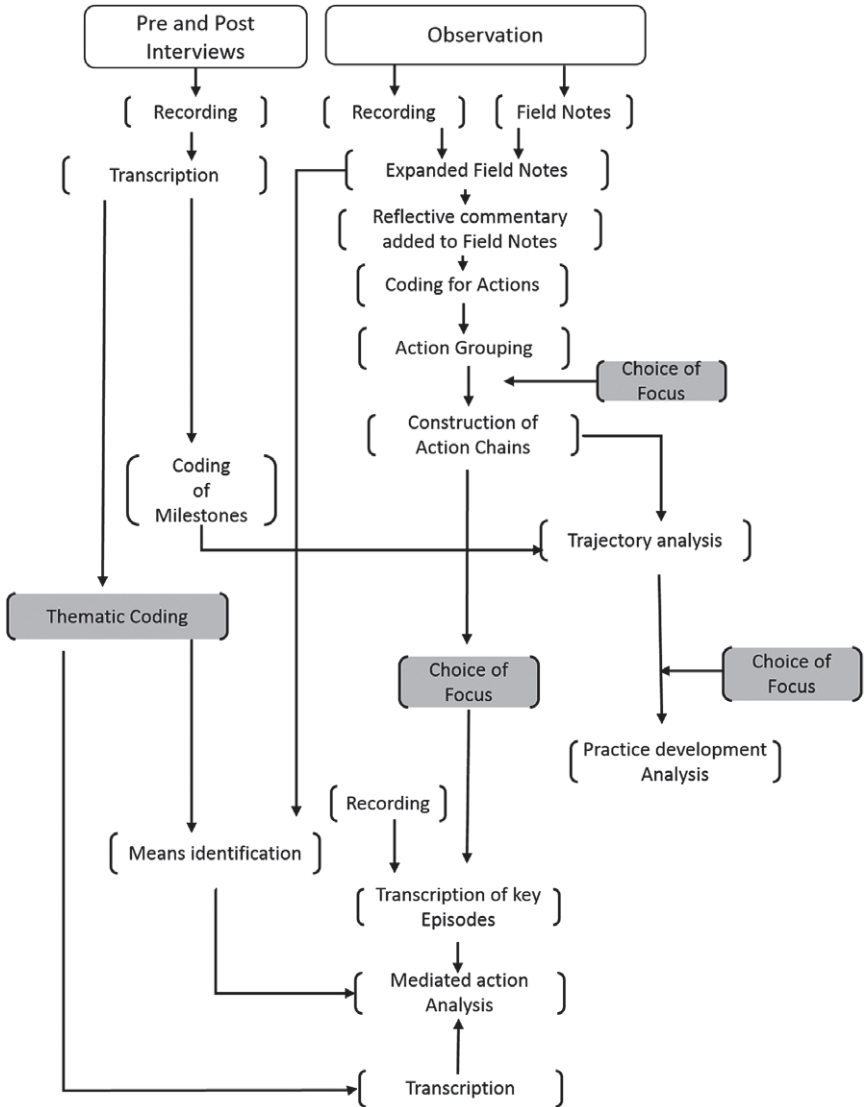
The data manipulation and analytical steps involved in this MDA example have been mapped so as to construct a guide for future researchers. This is shown in Figure 7. The flow downward on the diagram is reasonably indicative of a suitable sequencing in which to conduct the different stages. Items where reference to literature is a requisite are shaded in gray, for example, the identification of potential practices.

As identified earlier, the outcomes of the analysis are then shared with research participants. This then results in an additional analytical loop, which potentially could alter, and hopefully refine, the analysis of any of the above steps. In the research project used as an example, this was more prevalent in the latter stages, such as the trajectory analysis, practice development, and the mediated action analytical commentary.

Theorizing

In this illustrative project, a CR position was adopted because of the coherence of this with respect to the practice perspective, organizational routines, and MDA. Two key aspects of CR theorizing are the notion of abduction and retroduction (O'Mahoney & Vincent, 2014). Abduction is a theoretical redescription of events, often using theory gleaned from the literature review in order

Figure 7. MDA Analytical Pathway



to obtain the most plausible explanation of events (Bygstad & Munkvold, 2011; O'Mahoney & Vincent, 2014). Retroduction is a search for candidate mechanisms (Bygstad & Munkvold, 2011). Scollon and Scollon (2007) have a useful example of retroduction in tracing back to a potential root cause from the initial analysis of student attainment leading to why they were allocated

in a particular dormitory. Mingers (2002) confirmed that abduction and retroduction are often done in one movement by researchers as they move from qualitative data to the best explanation of the data. The MDA methodology provides a large quantity of data, and thus analysis, of both the actions and mediational means being taken in an event, but perhaps more significantly the tracking of practices. This therefore facilitates the ease of both abduction and retroduction in terms of causal mechanisms and the development of a theoretical perspective of the context, which leads to a theory of some utility.

An interventionist researcher must move between the emic (outsider) and etic (insider) perspectives (Jonsson & Lukka, 2005). Eden and Huxham (1996) concurred with this but also stress the need for this movement between the two perspectives to be explicit and form part of the theorizing process, which they identify as reflective steps. Aull Davies (2008), in her notion of reflexive ethnography grounded in CR, argued that an appreciation of the outcomes of reflection of the researcher could gain access to the hidden mechanisms being considered with the abduction and retroduction process. In this example of MDA, therefore, accessing different frames of reflection (McNiff & Whitehead, 2009), as well as providing data for analysis (in the reflective field notes), also facilitates insight for the theorizing process. Cunliffe (2003) identified the difficulty in writing reflexively; she writes in the first person, but also utilizes an italicized reflective voice within the text as a means by which at least one layer of reflexive narrative can be identified, and this is adopted here.

Organizational Routines. In order to illustrate the potential nature of theorizing that could stem from MDA, what follows is a brief introduction and overview of the theoretical landscape of organizational routines. This concept is relevant to HRD researchers; for example, Evans (2014) argued that HRD practices can be “materialized” through routines. Yeo and Marquardt (2015) identified connections between organizational and individual learning, routines, and practice.

Parmigiana and Howard-Grenville (2011) and Hansen and Vogel (2010) both identified and outlined two different “perspectives” on routines: that of the “black box,” which are the simple building blocks of capabilities, and that of the “practice” perspective on routines (Feldman & Pentland, 2003). The latter has produced some of the more enduring definitions of organizational routines, in particular that of “repetitive recognisable patterns of interdependent actions, carried out by multiple actors” (Feldman & Pentland, 2003, p. 95). Feldman and Orliowski (2011, p. 11) defined routines as having “mutually constitutive and recursive interaction between the actions people take (performative aspect of routines) and the patterns these actions create and recreate (ostensive aspects of routines).” Routines, therefore, are a dynamic and generative system. The development of the idea of the routine occurs by its being carried out, but this in turn affects future performances, and so on.

The primary interest for the empirical routine researcher are the mechanisms that link the ostensive and performative aspects of the routine. Within the routine literature studies, there are a number of potential underlying mechanisms. These include artefacts (Cacciatori, 2012), agency (Friesl & Larty, 2013), and learning (Piening, 2011). Different authors grapple with the interaction of the local organization context, structure, and the like, with routines (Rerup & Feldman, 2011). Finally, power is identified both in conceptual papers (Dionysiou & Tsoukas, 2012; Friesl & Larty, 2013) and in empirical investigations (Bresnen, Goussevskaia, & Swan, 2005; Howard-Grenville, 2005) as being significant but also connected to agency.

Theorizing Example. It was possible from the answers to the heuristic questions in the illustrative example to construct a significant number of propositions. One example, which is explored below, is the influence of the mechanism of power within the larger construct of coaching to develop process improvement routines. This explores the presence and dispensation of power within what Turner and McCarthy (2015) term as the *coachable moment*. Cox, Bachkirova, and Clutterbuck (2014) argued that coaching should have an equal distribution of power in the relationship but that this is problematic for managers who are coaches. This is also an issue in peer coaching (Parker, Kram, & Hall, 2014) and team coaching (Cushion, 2001). French and Raven's (1959) seminal work identifies five different types of power in a social context: legitimate, referent, expert, reward, and coercive power. For Bourdieu (1989), symbolic power is the structural embodiment of the dominant power relationships. Social actors either tacitly accept the domination due to a social value they derive from the exchange, or are unaware that the power relationship exists. The hierarchical power referred to in the analysis is most closely represented by French and Raven's notion of legitimate power. Irene and I also have a degree of reward power over Martha, based on her desire to want to lead a project. My power in this situation is not legitimate, but potentially a mixture of expert and referent power (based on need for approval from both Irene and Martha) but overlaid with a degree of symbolic power. In the planning episode, both Irene and I attempt to suspend the use of power, by empowering Martha to make her own decision about planning the meeting and the activity before and after it. *Is the power suspended in order to allow coaching to occur, or does coaching occur because some power is suspended? For myself, it is the former, as the AP meetings were designed partly as a forum for the coaching.* Martha's interview and comments from the focus group indicate that she recognized and allowed coaching to occur because of what she termed the flat hierarchy in the planning meeting.

It is clear between Irene and me that we have boundaries to that suspension based on the risk analysis (Turner & McCarthy, 2015) of the project and practice not continuing at our desired pace. *However, we appear to shy away from an overt use of legitimate power, by utilizing past practice as an argument for*

a path for the process mapping routine. Martha attempts to do the same in deciding the next actions of the process mapping routine. *As well as trying to affect the next performance, is it also trying to endorse a particular view of the ostensive aspect of the routine?* The AP meetings are a form of symbolic power, as the name of these meetings suggests this is where the “actions” are “planned”: It is also being used as structure for power mechanisms for decision-making power to be mobilized. The explicit and overt appropriation of past practice within this power-laden decision-making process (Hardy, 1996) is a potentially significant mechanism, different than the unconscious repetition of interdependent actions suggest by the literature on routines. *The question remains: Would Irene and I completely suspend our power over the enactment of the process mapping practice? The answer is probably no because of the need to collect research data, the overall need to keep the project going, and our need to ensure Martha fulfills her responsibilities. These are all differing types of power exerted on us.*

Zbaracki and Bergen (2010) built on Winter and Nelson’s (1982) concept, which sees routines as “truces” between competing power relationships, to look at how truces break down and are reconstructed. In this exchange among Martha, Irene, and me, we are constructing (by negotiating) a truce around how the process mapping routine should be performed. *In shaping the next performance how much are we as actors, particularly dominant actors, aware of the potential permanence of the routine?* Therefore, this mechanism of power mobilization within the coaching intervention best serves the dominant actor in the avoidance of mobilization of legitimate power.

One micro practice suggested by Brookfield (2005) within critical thinking in the coaching context is that of developing alternatives: Cox (2013) suggested this can empower the client. However, if, as in this case, the coach is offering alternatives, then they (*I vouch for this in this instance*) would not offer alternatives they were not willing to see enacted, thereby affording a degree of flexibility but also constraining the routine to a range of potential future actions. Therefore, there is expert power being mobilized, but in a symbolic almost hidden way. In this instance, this *boundaried* set of alternatives is based on my and Irene’s shared ostensive aspect of the process mapping routine.

In this example, MDA methodology provided a rich seam of analysis, which, coupled with utilization of the relevant conceptual understanding of routines, coaching and power, facilitated substantive theorizing in how process routines were developed. The reflexive layers shown in the text highlight and distinguish when I, as a researcher, developed and questioned potential conclusions. This is important in being able to discriminate, to a degree, the emic and etic perspectives required for validity and clarity in the MDA research process.

Considerations for HRD Researchers

The remainder of this article is a discussion on the both theoretical and practical implications of utilizing MDA in an organizational context. Scollon (2001b)

suggested that MDA could be conceptually located in the middle of a methodological spectrum. At one end of the spectrum would lie CDA and its focus on how wider discourses in the social realm affect language used by actors, while the other end of this spectrum would feature conversation analysis, with its highly detailed focus on linguistic construction. MDA, by contrast, has an explicit focus on action rather than discourse, and therefore perhaps has a greater capacity than CDA and other linguistic modes of analysis to explore how HRD practices are actually formed and developed. This focus on action coupled with its alignment to the praxis perspective is powerful because it enables both participants to relate their, and others', actions to the ongoing unfolding (Nicolini, 2012) and becoming (Clegg, Kornberger, & Rhodes, 2005) nature of practices that are important to HRD. This is synonymous with the need for understanding of the behavior of managers in organizational settings called for by Nicolai and Seidl (2010). It can, by changing the nexus, directly influence the development of HRD practice that is needed (Gubbins and Rousseau, 2015). For example, this study is able to explore coaching in action, as opposed to a coach's perspective on a typical or historical coaching session (Bachkirova, Sibley, & Myers, 2015). An MDA researcher can be embedded to a certain extent, depending on the setting, which can drive the need for a reflexive aspect to the research, which is important for social science research (Cunliffe, 2003). While at first the reflexive aspect of the method can be daunting, it not only provides a substantive data set, but the structured nature of methodological steps within the latter set of the heuristics questions can help guide and ultimately develop the reflexivity of the researcher. In addition, the method can help HRD practitioners with their own reflective practice.

The involvement of participants in the observation and analytical stages aligns well with many of the tenets and objectives of the different parts of the action research family (Reason & Bradbury, 2008). Rousseau (2012) has argued for this type of research in management and MDA could fit with the interventionist research agenda suggested by Nimon and Astakhova (2015), but here expanded to include a potential qualitative mode of intervention. The multiple threads of interaction that are required as part of MDA between researchers and practitioners is a potential vehicle for increasing interrelationships between these communities. The nature of the interaction is also constructive, in the sense that researchers and practitioners are together undertaking pattern recognition and differentiation of both action and practice in their relevant context, but also developing those skills that Eraut (2014) suggests are less common.

Table 1 shows the both the depth and breadth of detail that can be obtained in the analysis, which facilitates the zooming in and out argued for by Nicolini (2012) when researching practice. Other aspects of the research project used MDA to analyze the detail of the low-level actions to uncover the entwinement of routines at the level each individual action, in a similar vein to Yeo and Marquardt (2015) in their exploration of organizational learning.

Elsewhere in the same research project, the use of MDA allowed the exploration of (at a higher level) how a set of routines could form an assemblage of capability.

The methodology of MDA is advantageous, as it is flexible but also facilitates structure—the heuristic questions provide the analytical scaffolding. The flexibility of MDA can be seen in three ways: a choice of *focal depth* in terms of the practice(s) being explored; a choice of methods depending on the context; and the flexibility that results from establishing a large potential bank of mediational means, so as to afford the researcher choice in exploring different areas of concern or interest.

The scale and scope of the analysis within MDA, means a richer field for potential theorizing. The alignment of MDA to the practice perspective, and the need for establishing mediational means partly via a thematic analysis, ensures linkages back to the literature.

The data collection involved in MDA is relatively straightforward, with perhaps the exception of the desirability to record events at the site of engagement, which might result in access issues in some cases. However, the analysis of the data is time consuming for two reasons. First is the sheer quantity of the analytical resources needed to answer the heuristic questions (outlined in Figure 7). This includes the thematic analysis of the two interview sets, the construction of the transcripts for the event episodes, and the construction of the action hierarchy tables, as well as the interrogation of the interview data for trajectories of practice. Second, the latter two analytical steps mentioned previously require meticulous and fastidious work and do not lend themselves to be done using analytical software.

However, as a result of the need to understand all the relevant trajectories of practice and the bank of mediational means that transpire to intersect and appear at a site of engagement, a deep and wide-ranging understanding of the social realm of an organization can be obtained from a single locus of study. Hence, although there is a significant amount of analytical work involved in MDA, this can yield a significant theoretical return on a smaller amount of fieldwork, possibly useful in situations where access is problematic or time limited. The method is also, to a certain degree, helpfully neutral in when it should be conducted. Because MDA views actions as being part of a practice that has a history and a future, and that many practices will have both multiple sites of engagement and therefore many nexus; the chosen site(s) of engagement are actually less critical and more flexible than could be construed. In addition, the data can be recycled so as to utilize it to answer additional or subsequent questions, both research driven and workplace-derived problems that the organization may need to solve. This is potentially useful for HRD practitioners as an approach for gaining insight for a limited investment of time from participants within their organization. Therefore, we suggest that MDA is a methodology that can illuminate and enrich our understanding of HRD and help us propel both practice and research.

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Appendix 1: Example Table of Trajectory Milestones.

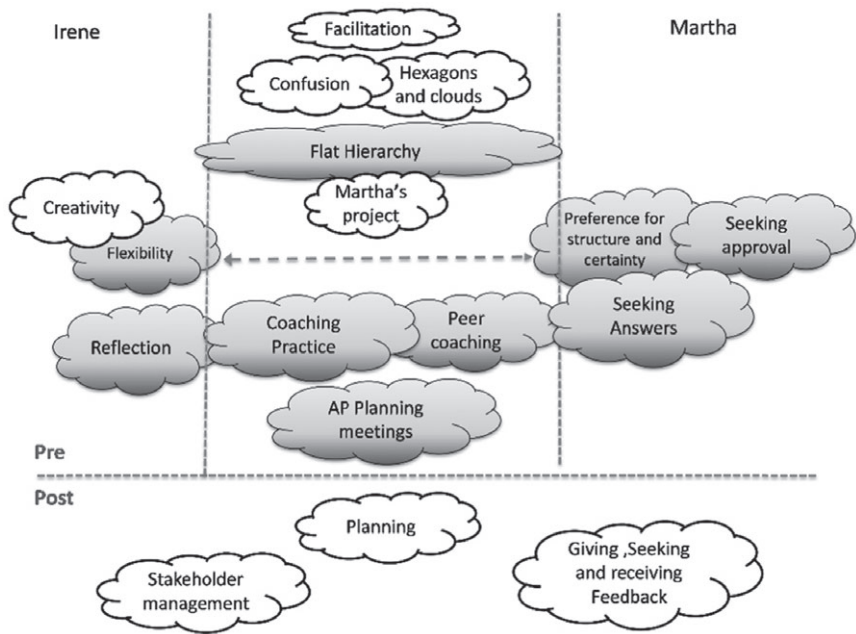
<i>Induced Timeline</i>	<i>Participant</i>	<i>Process mapping Milestones</i>
1	Martha	PR: What even going back to 2013? Martha: Yes, yes. PR: When I first sent you [my first] process map?
1	Liz	I worked in the steel industry before I came to the university where we went through a big change programme. [We] looked at lean manufacturing and did an awful lot of looking at processes and improving them, because basically, it was you've got to improve or you get closed down ...
2	Zoe	It was really good to sit down and look at process from start to finish. [The process map was] at the forefront of my mind, so when I've been doing things I've been thinking about that process [map] from the first meeting. I think the initial meeting, yes the initial meeting. Yeah, so that for me was the initial, this is what we're doing, [the] very, very first one that we did over there.
2.5	Beth	I think because when we met with you, I think it's been more than six months [ago], [where] we did the same thing.
3	Zoe	No that was kind of for me.... kind of repetitive at first; So there was an element of.... we've sort of already done this.
3	Ruth	I think when we sat in the room and drew it all up on the board ... This was the last one that we had where you weren't at ... Martha led it ...right at the beginning, and then this one went actually into the stages ... PR: Okay, but, so the [changes] would have been, should have been, captured in their first meeting? Ruth: It's probably happened between meetings ...maybe, but I know that at least one of the [SM office] has sat with Martha and gone through this to fill in the gaps of the new document that she's put together in the last meeting
3	Malcolm	The first meeting was to essentially try and map out the process, but I think probably what we'll do this afternoon, is review where we think we're at. I did go to the first meeting. Well I think getting the process down on paper as it currently stands, so everyone can agree what the current situation is, in itself.... well you've got to do it, obviously, but it is a significant step, because it very much clarifies where the problem areas are.

(Continued)

Appendix 1. (Continued)

<i>Induced Timeline</i>	<i>Participant</i>	<i>Process mapping Milestones</i>
3	Tessa	But kind of the meeting previous to yesterday's, it was very much a meeting which I felt we'd already had with yourself before that.
4	Irene	Well it's been such a big gap since the process mapping, because she's done the process map.
4	AP 6	Martha talked about benefits of VSM (compared to SMO Process mapping) "From past experience going through process map on big screen doesn't work - send it individually via email and then work with separate people" "Shouldn't spend next meeting going through the process" map (Martha) Discussion was held that other projects proceeded without process map being finished.
4.5	Martha	"I think it was after the action planning meeting that I was meeting with one of the colleagues from the [SM office] to go through the process map.
5	Beth	So yeah, I amended a few things, I said no this is not [how it is actually done], we are doing it this the way and I think, you know the e-mail she sent yesterday or before, yeah that was.... yeah that's absolutely fine." Yeah, because there was a few things missing when she showed me. I said no this is not what we do, so there was some gaps need to be filled ...
5	Process Improvement Meeting	Martha States intent of going through the map – seeks affirmation from group – no audible response. Refers to help (from a team member Beth) - and then talks through the process map.
6	Liz	I wanted to have a go at sticking it together before and have a quick look at it.
6.4	Tessa	Kind of reflected on the process map which was developed last time.
10	AP7	Martha explains the situation and that the meeting was almost cancelled. Martha explains that the meeting was called to finalise the process map.

Appendix 2. Action Planning Meetings Pre and Post Thematic Summary



Notes. Grayed items were present in both the pre and post interviews, while clear items were only present either before or after. Items in the center of the diagram were common to both Martha and Irene. Items that were more specific, and hence less generic to the site of engagement, were placed closer to the line of the pre and post separation.

Appendix 3. Table of Potential Mediational Means for the Process Improvement Project Meeting

Physical Mediational Means	Suggested Anticipatory Discourses	Additional Retrospective/ Current Discourses
Projector		
Process map		
Methodology diagram		
Screen		
Process map on paper		
Room layout		
Recording device		
Agenda		
Action sheet		

(Continued)

Appendix 3. (Continued)

Physical Mediatlional Means	Suggested Anticipatory Discourses	Additional Retrospective/ Current Discourses
Aims and objectives		
slide pack		
Tables		
Chairs		
PC screen		
PC		
Mouse		
Keyboard		
Individual notepads/iPads		
	Effectiveness	
	Efficiency	
	Speed	
	Workload	
	Empowered	
	Making own process changes	
	Utility of process mapping event	
	Process improvement knowledge	
		Contextual discourse
		Postponement
		William
		Project utility